

REMARKS

Reconsideration of the application is respectfully requested based on the claim amendments set forth above and the remarks set forth below.

Claims 1, 4-8, 13-17, 20-24, 29-32, 39 and 40 are pending. Claims 1 and 17 are independent. By this Amendment, claims 1 and 17 are amended. No new matter is involved.

Rejection under 35 U.S.C. § 103

Claims 1, 4-8, 13-17, 20-24, 29-32, 39 and 40 stand rejected under 35 U.S.C. § 103(a) as being obvious over Choi (U.S. Patent Pub. No. 2003/0236905) in view of Fukunda (U.S. Patent No. 5,937,138), and Omoigui (U.S. Patent No. 7,237,254). This rejection is respectfully traversed.

Claim 1, as amended, recites a method of reproducing, by a content reproducing device, content information stored on a recording medium, the method comprising: reproducing a first stream of data read out from the recording medium in synchronization with a second stream of data received from a content providing server over a network based on a first command sent from the content reproducing device to the content providing server, the first stream of data comprising audio/video data and the second stream of data comprising content data to be reproduced in synchronism with the first stream of data; sensing a failure in receiving the second stream of data; and upon sensing the failure, re-synchronizing the first stream of data with the second stream of data based on information for synchronization or re-synchronization included in the second stream of data, thereby simultaneously and synchronously reproducing the first stream of data together with the second stream of data, wherein the information included in the second stream of data includes data rate information of the second stream of data and/or size information of the second stream of data.

Claim 17, as amended, recites an apparatus for reproducing content information, comprising: a renderer configured to reproduce a first stream of data read out from a recording medium in synchronization with a second stream of data received from a content providing server over a network based on a first command, the first stream of data comprising audio/video data and the second stream of data comprising content data to be reproduced in synchronization with the first stream of data; and a processor configured to sense a failure in receiving the second

stream of data, and upon sensing the failure, re-synchronize the first stream of data with the second stream of data based on information for synchronization or re-synchronization included in the second stream of data, thereby simultaneously and synchronously reproducing the first stream of data together with the second stream of data, wherein the information included in the second stream of data includes data rate information of the second stream of data and/or size information of the second stream of data.

Choi describes a method of streaming media content from a server to at least one client. The method includes: establishing a streaming media connection between the server and the at least one client; streaming the media content from the server to the client; receiving, by the client, the streamed media content from the server; sending a reconnect request from the client to the server if the streaming is interrupted; receiving, by the server, the reconnect request from the client; re-establishing the streaming media connection with the client; and continuing with the streaming the media content and the receiving the streamed media content.

The Official Action cites to Choi's paragraph [0005] for a teaching of Applicants' claimed step of "upon sensing the failure, re-synchronizing the first stream of data with the second stream of data based on information for synchronization or re-synchronization included in the second stream of data."

Applicants respectfully disagree with this conclusion for a number of reasons.

Firstly, Choi's paragraph [0005] recites that Choi's invention includes a "method of streaming media content from a server to at least one client. In particular, the invention includes server software executing on the server communicating with client software executing on the client. If the streaming is interrupted, the server software and the client software exchange messages to re-map a state of the client and re-synchronize playback of the content."

However, this paragraph is merely the opening paragraph of the Summary Of Invention portion of Choi's disclosure. This paragraph does not clarify just what is being re-mapped and resynchronized. Indeed, a careful reading of the Detailed Description of Choi reveals no specific details that would support a finding that what is being re-synchronized is a) a first stream with a second stream, let alone b) a first stream with a second stream based on information for synchronization or re-synchronization included in the second stream of data. Instead, in Choi, there is only one stream of data from a server to a client and, when that stream is interrupted or

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disconnected, the client sends a reconnection request to the server, and reestablishing connection of that one stream with the client. Choi's disclosure of resynchronization appears to be directed toward re-synchronizing the playback of a single stream between a client and a server. That is, there is a single stream of data between Choi's client and the server. Choi's client plays back this stream in synchronism with how the stream is being provided by the server. If Choi's single stream is interrupted, play back at the client is no longer synchronized with how the single stream is being produced by the server. Choi allegedly describes messages for remapping so that the single stream may be resynchronized.

As noted in paragraph [0011] of Choi, both the server and client components include computer-executable instructions for exchanging one or more messages to re-map the state of the client and to re-synchronize playback of the content if the streaming is interrupted.

As explained in paragraph [0117] of Choi, client reconnect logic 112, 114 allows client 110 to restart at the point connection was lost by seeking to that point in the file upon successfully reconnecting to the server and, if the content is not seekable, the program element will be restarted at the beginning.

Thus, Choi clearly has no disclosure whatsoever of reproducing a first stream of data read out from the recording medium in synchronization with a second stream of data received from a content providing server over a network based on a first command sent from the content reproducing device to the content providing server, the first stream of data comprising audio/video data and the second stream of data comprising content data to be reproduced in synchronization with the first stream of data. Instead, Choi is limited to reconnecting and re-synchronizing a disconnected single data stream, which has nothing to do with the claimed invention. Nor, with respect to claim 17, does Choi disclose a renderer to achieve this function.

Choi also fails to disclose the remaining claimed features of claims 1 and 17.

Fukunda is directed to authoring a DVD disk which involves selecting and reproducing multimedia data, video data, audio data and sub-picture data, for example. Fukunda, like Choi, has no disclosure whatsoever, of reproducing a first stream of data read out from a recording medium in synchronization with a second stream of data received from a content providing server over a network based on a first command sent from the content reproducing device to the content providing server, the first stream of data comprising audio/video data and the second

stream of data comprising content data to be reproduced in synchronization with the first stream of data. Instead, Fukunda is limited to selecting and reproducing data, for example, recorded on a DVD video disk which does involve synchronizing the different data, but not in the sense of a first stream of data being read out from a recording medium in synchronization with a second stream of data received from a content providing server over a network based on a first command sent from the content reproducing device to the content providing server, as claimed. Nor, with respect to claim 17, does Choi disclose a renderer to achieve this function.

Additionally, the relied upon portions of Fukunda in the rejection do not disclose that the relied upon scenario data St7 contains video and audio components of the multimedia source data.

In this regard, Applicants note that the Office Action refers to Fukunda at column 11 lines 46-50, column 27 lines 54-59 as follows:

The scenario selector **2100** preferably comprises a keyboard, CPU, and monitor. Using the keyboard, the user then inputs the desired scenario based on the content of the scenario input by the authoring encoder EC. Based on the keyboard input, the CPU generates the scenario selection data **St51** specifying the selected scenario. The scenario selector **2100** is connected by an infrared communications device, for example, to the decoding system controller **2300**, to which it inputs the scenario selection data **St51**.

The scenario data St7 of the DVD encoder ECD also contains control information on a video object VOB unit basis. This information is required to encode the media source stream, and specifically includes such information as whether there are multiple angles or parental control features. When multiple angle viewing is enabled, the scenario data St7 also contains the encoding bit rate of each stream considering data interleaving and the disk capacity, the start and end times of each control, and whether a seamless connection should be made between the preceding and following streams.

The encoding system controller 200 extracts this information from the scenario data St7, and generates the encoding information table and encoding parameters required for encoding control. The encoding information table and encoding parameters are described with reference to FIGS. 27, 28, and 29 below.

However, according to the above paragraphs of Fukunda, the scenario data St7 contains encoding bit rate of each stream and the disk capacity, the start and end times of each control, and whether a seamless connection should be made between the preceding and following streams.

Furthermore, according to Fukunda, “The scenario editor 100 of the authoring encoder EC outputs the scenario data, i.e., the user-defined editing instructions. The scenario data controls editing the corresponding parts of the multimedia bitstream MBS according to the user's manipulation of the video, sub-picture, and audio components of the original multimedia title. This scenario editor 100 preferably comprises a display, speaker(s), keyboard, CPU, and source stream buffer. The scenario editor 100 is connected to an external multimedia bitstream source from which the multimedia source data St1, St3, and St5 are supplied.”

Applicants respectfully submit that, firstly, the scenario data St7 is information generated by a scenario editor according to a definition of a user and required to encode or reproduce streams of data. That is, the scenario data St7 is different from contents data to be reproduced with the first data, or the second stream data including the contents data.

Further, according to Fukunda, “The user is thus able to reproduce the video and audio components of the multimedia source data using the display and speaker to confirm the content

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of the generated title. The user is then able to edit the title content according to the desired scenario using the keyboard, mouse, and other command input devices while confirming the content of the title on the display and speakers. The result of this multimedia data manipulation is the scenario data St7.”

Applicants respectfully submit, secondly, that the scenario data is information for reproducing video and audio components of the multimedia source data which correspond to the first stream of data, but not to reproduce the second stream of data.

Moreover, because the information included in the second stream of data includes data rate information of the second stream of data and/or size information of the second stream of data, the scenario data St7 has to contain the encoding bit rate of the scenario data St7 and disk capacity of the scenario data St7 not the information of the first stream of data (video and audio components of the multimedia source data).

Accordingly, the scenario data St7 does not contain video and audio components of the multimedia source data.

Applicants also respectfully submit that Choi and Fukunda are directed to significantly different inventions and that the Office Action fails to provide factual evidence to support a conclusion that one of ordinary skill in the art would be properly motivated to turn to Fukunda's DVD disk encoder scheme, which involves initial synchronization (not re-synchronization) of different media files into a single multimedia file, to modify Choi's streaming media disconnection and reconnection scheme, where no components of the single stream are recombined or resynchronized.

The Office Action then turns to Omoigui to provide another missing feature of the claimed invention.

Omoigui, like Choi, is directed to streaming multimedia files, and describes a method for rendering a stream of data by a client at different playback speeds. The method includes: receiving from a server via a network a stream of data for a first playback speed; rendering the received stream of data at the first playback speed; switching the rendering of the received stream of data from at the first playback speed to at a second playback speed that is greater than the first playback speed; notifying the server of the second playback speed; and after switching the rendering, initially receiving from the server the stream of data that is timeline-modified for a

third playback speed that is greater than the second playback speed and then receiving from the server the stream of data that is timeline-modified for the second playback speed wherein the data received for the third playback speed are rendered at the switched second playback speed.

However, Omoigui does not cure the above-identified deficiencies of Choi or Fukunda. Instead, Omoigui describes a composite media stream that includes a plurality of individual media streams representing multimedia content. Each of the individual media streams corresponds to and represents a different media type. Each of the media streams can be rendered by a network client to produce a user-perceivable presentation using a particular presentation medium. The individual media streams have their own timelines, which are synchronized with each other so that the media streams can be rendered simultaneously for a coordinated multimedia presentation. The individual timelines define the timeline of the composite stream. However, while Omoigui's different media streams can be synchronized with each other, Omoigui's disclosure of seamless switching is presented solely in terms of the composite stream, as discussed from col. 11, line 33 to col. 15, line 20. Accordingly, Omoigui does not disclose or suggest synchronizing a first stream with a second stream based on information for synchronization or re-synchronization included in the second stream of data, as claimed.

Accordingly, the Office Action does not make out a *prima facie* case of proper motivation to combine the applied art, as suggested, and fails to make out a *prima facie* case of obviousness of the claimed invention over the proposed reference combination.

Thus, reconsideration and withdrawal of this rejection of claims 1, 4-8, 13-17, 20-24, 29-32, 39 and 40 are respectfully requested.

Additional Cited References

Because the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

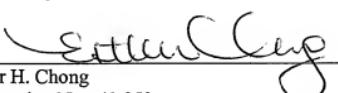
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert J. Webster, Reg. No. 46,472, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

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